

## WE CLAIM:

1. A coated cemented carbide body comprising:

a gamma phase consisting essentially of TaC, TiC and WC, wherein the ratio of Ta/Ti is 1.0-4.0, the body having a CW ratio of 0.75-0.95, the CW ratio expressed as:

CW ratio =  $M_s/(wt.\% \text{ Co} * 0.0161)$ , wherein  $M_s$  is the measured saturation magnetization of the body and wt.% Co is the weight percentage of Co in the cemented carbide, the body further comprising a surface zone that is essentially gamma phase-free and is binder rich.

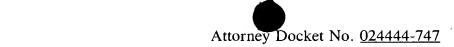
- 10 2. The coated body of claim 1 wherein the surface zone is approximately 5-50  $\mu$ m thick.
  - 3. The coated body of claim 1, wherein the surface zone is approximately 10-30  $\mu$ m thick.
- 4. The coated body of claim 1, wherein the surface zone has a binder phase content 1.2-2.0 times the binder phase content in the rest of the body.

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- The coated body of claim 1, wherein the Ta/Ti-ratio is 2.0-3.0.
- 6. The coated body of claim 1 wherein the CW ratio is 0.80-0.85.
- 7. The coated body of claim 1, wherein the body comprising Co content of 5-12 wt.%.
- 8. The coated body of claim 7, wherein the Co content is 9-11 wt. %.





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- 9. The coated body of claim 1, wherein the combined content of TaC and TiC is 3-11 wt.%.
- 10. The coated body of claim 9, wherein the combined content of TaC and TiC is 7-10 wt. %.
- 5 11. The coated body of claim 1, wherein the body comprises WC having a grain size of 1.0-4.0  $\mu$ m.
  - 12. The coated body of claim 11, wherein the grain size is 1.5-3.0  $\mu$ m.
  - 13. A coated body of claim 1, wherein said coating comprises a 3-12  $\mu$ m columnar TiCN-layer, followed by a 1-8  $\mu$ m thick Al<sub>2</sub>O<sub>3</sub>-layer.
- 10 14. The coated body of claim 13, wherein the said  $Al_2O_3$ -layer is  $\kappa$   $Al_2O_3$ .
  - 15. The coated body of claim 13 wherein the coating comprises an outermost layer of TiN.
- 16. The coated body of claim 14, wherein the coating comprises an outermost layer of TiN.
  - 17. The coated body of claim 15, having no TiN layer at an edge line of the body.
  - 18. The coated body of claim 1, wherein the coated body comprises a cutting tool insert having at least one cutting edge.

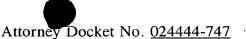
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- A method of making a coated cemented carbide body having a 19. gamma phase-free and binder rich surface zone comprising the steps of:
- (i) forming a powder mixture comprising WC, 5-12/wt. % Co, 3-11 wt. % cubic carbides of Ta and Ti, where the ratio of TaXTi is 1,0-4.0;
  - (ii) adding N in an amount of 0.6-2.0% of the weight of Ta and Ti;
- (iii) milling and spray drying the mixture to form a powder material with the desired properties;
- (iv) compacting and/sintering the powder material at a temperature of 1300-1500°C, in a controlled atmosphere of about 50 mbar followed by cooling, whereby a body having a binder phase enrighed and essentially gamma phase free surface zone of 5-50  $\mu$ m in thickness is obtained;
  - (v) applying a pre-coating treatment to the body; and
  - (vi) applying a hard wear resistant coating.
- 20. The method of claim/19, further comprising adding a pressing agent and W to the powder mixture in an-amount to give the body a CW ratio of 0.75-0.95, the CW ratio is expressed as CW ratio =  $M_s/(wt.\% \text{ Co}*0.0161)$ /where  $M_s$ is the measured saturization magnetization of the body and wt. % Co is the weight percentage of Co in the cemented carbide.
- 21. The method according to claim 19, wherein the powder mixture comprises 7-10 wt. % of cubic carbides of the metals Ta and Ti.
  - 22. The method according to claim 19, wherein the coating is applied using a CVD-technique.
  - The method according to claim 19, wherein the coating is applied 23. using a MT-CVD-technique.